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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/713,775

11/15/2000

Jae-Young Jung

12568-002001 / OPP  
000771

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26161 7590 03/07/2003

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EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 03/07/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/713,775

Applicant(s)

JUNG, JAE-YOUNG

Examiner

Deborah Yee

Art Unit

1742

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarlin et al (US Patent No.5,415,706).

Claims 2,4,6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarlin et al(US Patent 5,415,706) as applied to claims 1,3,5 and 7 above, and further in view of English abstract of Japanese patent 402217444A.

### ***Response to Arguments***

Applicant's arguments filed December 24,2002 are not deemed persuasive. Scarlin discloses a composition containing 8-13%Cr and 0.05-2.0%Ni, which respectively overlap 10-19 or 12-16%Cr and 1-6%Ni recited in the rejected claims. It was argued that Scarlin teaches away from a Cr content exceeding 13% and prefers a Cr range is 8.5 –11%. Similarly, Scarlin teaches away from a Ni content over 2% and prefers a Ni range of 0.3-1%. It is the examiner's position that applicant still claims a broad Cr and Ni range which would include alloys containing less than 13%Cr and less than 2% Ni within the amounts taught by Scarlin. To distinguish claims over prior art, it is recommended to amend claims to recite a Cr lower limit of 13% and a Ni lower limit of 2%.

In regard to the method claims, Scarlin discloses a tempering temperature of 780C which is higher than the recited tempering temperature of 350-575C. Applicant submitted a diagram to demonstrate that a steel containing 0.06%C and 12%Cr tempered at 780C vs. below 575C would have different Cr carbides. It is the examiner's position that one skilled in the art would expect a larger number of carbides to precipitate at a higher temperatures, and steel would have less ductility. To select the tempering temperature, would be a matter of routine optimization depending on desired strength, toughness and ductility desired, which is well within the skill of the artisan and productive of no new and unexpected results.

Furthermore, Examiner maintain her position that it would be obvious to incorporate Ti and/or Ta in to the Scarlin alloy in view of JP'444A because Ti and Ta are chemically equivalent to V and Nb which are already taught by the prior art, and therefore could be used interchangeably.

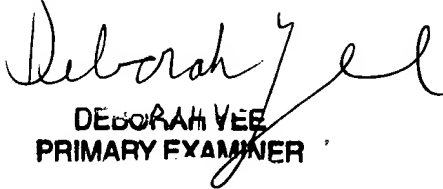
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy  
March 3, 2003

  
DEBORAH VEE  
PRIMARY EXAMINER